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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,023	05/24/2001	Michael Aven	AM100307-00	2884

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KEIL & WEINKAUF
1350 CONNECTICUT AVENUE, N.W.
WASHINGTON, DC 20036

EXAMINER

CLARDY, S

ART UNIT PAPER NUMBER

1616

DATE MAILED: 08/29/2003

17

Please find below and/or attached an Office communication concerning this application or proceeding.

Jason Voight
202-659-0100

Office Action Summary

Application No.

09/865,023

Applicant(s)

Aven et al

Examiner

S. Mark Clardy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jun 16, 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-19 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-19 is/are allowed.
- 6) ☒ Claim(s) 1, 3-8, and 10-14 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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Claims 1 and 3-19 are pending in this application for which a Request for Continued Examination (RCE) and supplemental IDS has been filed following a Notice of Allowance mailed May 6, 2002. The application claims the benefit under 35 USC 119(e) of US Provisional Application No. 60/213,819, filed June 23, 2000, and 60/222,535, filed August 2, 2000.

Applicants' claims are drawn to solid granular herbicidal compositions (claims 8-11) which either comprises:

- A. 1) an aryloxypyrimidine or aryloxypyridine derivative (Claim 4: picolinafen¹, "TTP"² formula IA), and
- 2) a solid carrier (gypsum, clays, polyvinylpyrrolidone, polyvinylacetate, cyclodextrin (see claim 9), sugar, mixtures/copolymers, and optional solid auxiliaries);

or consists essentially of:

- B. 1) diflufenican³ (claim 15), and
- 2) cyclodextrin of formula II (claim 15).

Also claimed are methods of enhancing the herbicidal efficacy of the pyrimidine/pyridine by formulating them in solid form (claims 1, 3-7) and herbicidal methods of use (claims 12-13). The formulation methods include mixture of the above with a second herbicidal agent (claim 7; 122 secondary herbicides listed). Diflufenican is limited to claims 15-19.

¹N-(4-fluorophenyl)-6-[3-trifluoromethylphenoxy]-2-pyridine carboxamide

²4-(3-trifluoromethylphenoxy)-2-(4-trifluoromethylphenyl)pyrimidine

³2',4'-difluoro-2-(α,α,α -trifluoro-m-tolyloxy)-nicotinamide

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Again, claims 15-19 are allowable over the cited prior art. No references have been found with teach or suggest the combination cyclodextrin as a solid carrier at concentrations of 90% or more in a solid diflufenican composition.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Claude et al (EP 0 968 649), newly cited, teaches the utility of low concentrations of fatty alcohol ethoxylated surfactants in dry formulations as agents for enhancing the biological activity of herbicides and provides an extensive and non-limiting list of possible herbicides on pages 4-5, including diflufenican (p. 4, line 33). Either water insoluble or water soluble diluents are used in the herbicidal compositions comprising the activity enhancing fatty alcohol ethoxylate surfactants (p. 5, para 31), with water soluble diluents being preferred (line 48). Cyclodextrin is disclosed in a somewhat shorter list of possible water insoluble diluents (line 46). However, "if diluent is needed, levels up to about 40% by weight may be included", which is significantly less than the 90% to 99.99% (900 to 999.9 g/kg) required by claim 15. There is no teaching or suggestion in Claude et al to select these, and only these, specific components. Further, the subject ethoxylated adjuvants of Claude et al are an essential component in the disclosed compositions therein, and are essentially not a component of applicants' claims 15-19. The required surfactant component of Claude et al places it outside the scope of applicants' two (and only two) component composition consisting essentially of a specific herbicide and a specific carrier.

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Claim 9 is objected to as being dependent upon a rejected base claim (see below), but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The rejection of claims 10 and 11 under 35 U.S.C. 112, second paragraph, is withdrawn in response to applicants' amendment.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-5, 7, and 14 are again rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Mayer et al (US 6,030,924).

Mayer et al teach solid herbicidal formulations comprising various active agents including diflufenican (col 3, line 29) and, preferably, picolinafen (lines 48-53). Conventional fillers may be used in the compositions such as kaolin and other clay mineral materials at rates of up to 45% by weight (col 7, lines 30-52), although in a preferred embodiment, no kaolin is necessary at all (lines 51-52). Solid granular picolinafen compositions, with kaolin as a solid carrier, are described

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in Examples 3 and 4. While applicants compositions are described as having enhanced herbicidal activity due to the solid carrier, the compositions of Mayer et al would also possess this property because each component is present in the composition.

Claims 1, 3-8, 12-14 are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Maier et al (US 6,448,204). Maier et al, published September 10, 2002, is prior art because it claims priority to provisional application 60/166,004, filed November 17, 1999. Applicants earliest priority claim is to provisional application 60/213,819, filed June 23, 2000.

Maier et al teach herbicidal pyrazolylpyridine compositions comprising active agents within the scope of applicants' claims, in combination with solid carriers for various conventional solid formulations such as wettable powders, dusts, and water dispersible granules (col 8, lines 10-35). Wettable powder formulations may comprise as little as 5% active agent and 3% dispersant, thus containing up to 92% solid carrier; dust formulations are formulated like the wettable powders but without the dispersant and may thus contain up to 95% solid carrier; water dispersible granules may contain as little as 0.05% active agent and thus may contain as much as 99.5% solid carrier (col 8, lines 33-52). Note that the use of a carrier which will provide slow release of the pesticidal compounds into the environment of a plant which is to be protected is of "particular interest in enhancing the duration of the protective activity of the compounds of this invention" (col 9, lines 8-13). Examples are provided for a wettable powder (WP) and a water dispersible granule (WG) composition (columns 9-10). Further, the active agents may be combined with various secondary herbicidal agents (columns 10-11), and are useful for various weeds including *Galium aparine* and

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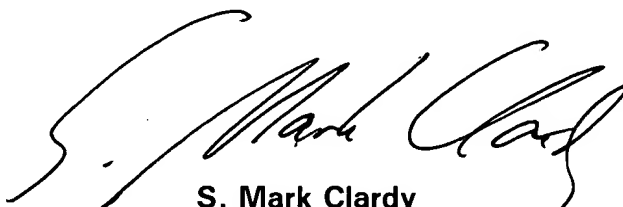
Alopecurus myosuroides (col 12, Table 1). Here, as in Mayer et al, above, applicants' property of enhanced herbicidal activity would be present in the compositions of Maier et al because all of the composition components are present.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103c and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Mark Clardy whose telephone number is (703) 308-4550.



S. Mark Clardy
Primary Examiner
AU 1616

August 27, 2003